

## **REMARKS**

### **I. Status**

In the Office Action mailed January 2, 2004, the Examiner noted that claims 1 and 3-17 were pending, and rejected claims 1 and 3-17. The applicant respectfully traverses the rejection.

### **II. Drawings**

Figure 9 has been corrected according to the Examiner's comments.

### **III. Response to Arguments**

On the top half of page 3 of the Examiner's Response ( mailed 01/02/2004), the Examiner argues that the "Applicant has failed to provide any concrete evidence to show why it would be non-obvious for the reflecting optical surfaces of the beam splitting elements" (i.e. 100, 102, 104 of Figure 4) of Goldsmith et al. to specifically be optical coating planes. The Examiner continues the argument that it is also known further in the art to combine such beam splitting elements 100, 102, 104 into single components, as demonstrated by Vincent et al.

The Applicant respectfully disagrees. First, the Examiner admits on page 5, lines 16-18 of the Examiner's response that "Goldsmith et al. lacks the first, second, and third optical planes of the beam splitting elements (i.e. 100, 102, 104) being optical coating planes". Thus, the Examiner puts forth an argument which combines the three discrete beam splitters 100, 102, 104 of Goldsmith with the trichromatic beamsplitter of Vincent et al. and alleges this renders obvious the present invention which comprises "a first optical coating plane and a second optical plane for respectively reflecting a first light and a second light to an optical axis". However, Goldsmith et al. discloses three discrete beamsplitters and not a single component comprising "a first optical coating plane and a second optical

coating plane" as in the present invention. Since Goldsmith et al. already has constructed a device which combines two or more laser beams using two or more discrete beamsplitters, there is no need to further combine the beams using the trichromatic beamsplitter of Vincent et al. Such a combination doesn't work since you either have one device with multiple planes or you have three separate devices with no need for further modification. Consequently, there is no suggestion or motivation in either Goldsmith et al. or Vincent et al. for such a combination. Therefore, a prima facie case for obviousness has not been established. To establish a prima facie case of obviousness based on a combination of the content of various references, there must be some teaching, suggestion or motivation in the prior art to make the specific combination that was made by the applicant. **In re Dance**, 160 F.3d 1339, 1342 (Fed. Cir. 1998); **In re Oetiker**, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1445 (Fed.Cir.1992).

Furthermore, the single component device of the present invention reduces the cost of assembly over the multi-component device of Goldsmith et al. ("It is known that the more components the optical system has, the higher the assembling cost is", page 2, lines 5-6). The present invention overcomes the problems of the device of Goldsmith ("The conventional optical path has several drawbacks, for example the cost of the materials is high, and the process is complicated. It is difficult to regulate the optical axis of different optical paths as an identical optical axis, so that the quality of the read/write head is decreased." (page 2, lines 7-11). In summary, Goldsmith et al. was not aware of the simpler solution provided for the present invention. Surely, if Goldsmith et al. had know of a simpler solution to the problem, Goldsmith would have adopted it. In contrast, neither Goldsmith or Vincent have disclosed or suggested the "coating planes" of the present invention even though there is a significant cost in savings and improvement in accuracy.

For the above reasons, the Applicant requests that the Examiner produce a reference showing such motivation or allow the claims.

**IV. Rejection of claims under 35 U.S.C. § 103(a)**

Claims 1, 3-14, 16-17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Goldsmith et al. (U.S. Patent No. 5,113,387) in view of Vincent et al. (U.S. Patent No. 4,870,268). The applicant respectfully traverses this rejection.

The present invention of claim 1 recites "an optical device used in an optical read/write head comprising a first optical coating plane and a second optical coating plane for respectively reflecting a first light and a second light to an identical optical axis". The present invention of claim 14 recites "an optical component comprising a plurality of optical coating planes for respectively reflecting said plurality of light beams to an identical optical axis".

In contrast, Figure 4 of Goldsmith et al. shows three contiguous beam splitters lined up next to each other ("reflector"). Goldsmith et al. does not show "optical coating planes" as recited in claims 1 and 14. Furthermore, the Examiner admits that Goldsmith et al. "lacks the first, second, and third reflecting optical planes being coating planes".

However, the Examiner alleges that this modification would have been obvious, that is it would have been obvious to fabricate a device from multilayer dielectric thin film coatings. But, there is no suggestion, diagrams, discussion or motivation in either Goldsmith et al. or Vincent to suggest the optical coating planes of the present invention. In fact Goldsmith et al. does no more than disclose a device similar to the prior art discussed in the Background of the Invention, for example, on page 1, lines 23-24, it says "...two beam splitters 12, two laser sources 12 are needed for the design...". The present invention overcomes the complexity of having more than one piece with the optical device comprising coating planes. The present invention has many advantages described in the Specification that the prior art never anticipated. For example, the discreet components of Goldsmith are hard to align, whereas in the present invention there is no problem of aligning parallel components ("precisely positioning each optical component well is very important for a read/write head and even for the assembly of the optical path system", page 2, lines 3-5,

Specification). Furthermore, the single component device of the present invention reduces the cost of assembly over the multi-component device of Goldsmith et al. ("It is known that the more components the optical system has, the higher the assembling cost is", page 2, lines 5-6). The present invention overcomes the problems of the device of Goldsmith ("The conventional optical path has several drawbacks, for example the cost of the materials is high, and the process is complicated. It is difficult to regulate the optical axis of different optical paths as an identical optical axis, so that the quality of the read/write head is decreased." (page 2, lines 7-11). In summary, Goldsmith et al. was not aware of the simpler solution provided for the present invention. Surely, if Goldsmith et al. had know of a simpler solution to the problem, Goldsmith would have adopted it. In contrast, none of the references of the prior art have disclosed or suggested the "coating planes" of the present invention even though there is a significant cost in savings and improvement in accuracy. The Applicant requests that the Examiner produce a reference showing such motivation or allow the claims.

The Examiner has put forth an argument which combines the three discrete beam splitters 100, 102, 104 of Goldsmith with the trichromatic beamsplitter of Vincent et al. and alleges this renders obvious the present invention which comprises "a first optical coating plane and a second optical plane for respectively reflecting a first light and a second light to an optical axis".

However, Goldsmith et al. discloses three discrete beamsplitters and not a single component comprising "a first optical coating plane and a second optical coating plane" as in the present invention. Since Goldsmith et al already has constructed a device which combines two or more laser beams using two or more discrete beamsplitters, there is no need to further combine the beams using the trichromatic beamsplitter of Vincent. Such a combination doesn't work since you either have one device with multiple planes or you have three separate devices with no need for further modification. Consequently, there is no suggestion or motivation in either Goldsmith or Vincent et al. for such a combination. Therefore, a prima facie case for obviousness has not been

established. To establish a prima facie case of obviousness based on a combination of the content of various references, there must be some teaching, suggestion or motivation in the prior art to make the specific combination that was made by the applicant. *In re Dance*, 160 F.3d 1339, 1342 (Fed. Cir. 1998); *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1445 (Fed.Cir.1992).

#### **V. Rejection of claims under 35 U.S.C. § 103(a)**

Claim 15 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Goldsmith et al. in view of Vincent et al. as applied to Claim 14 above, and further in view of Fukakusa et al. (U.S. Patent No. 6,256,283). The applicant respectfully traverses this rejection.

Claim 15 is dependent on claim 14. Thus, claim 15 distinguishes over the prior art for the same reason as claim 1 argued above. Furthermore, neither Goldsmith et al. nor Vincent et al. disclose combining the plurality of light sources in the same pack. Neither Goldsmith et al., Vincent et al. or Fukakusa et al. disclose a motivation or suggestion for substituting the light pack disclosed in Fukakusa et al. for the three discrete lasers 50, 52, 54 shown in FIG. 4 of Goldsmith et al. In fact, such a combination does not appear to be possible since the discrete beamsplitters 100, 102, and 104 cover a wide area not rendering feasible by use of a single pack of lasers which would need further optical components to further separate the light beams.

#### **VI. Concluding Matters**

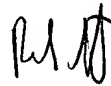
In view of the foregoing remarks, it is respectfully submitted that each of the claims distinguishes over the prior art, and therefore, defines allowable subject matter. A prompt and favorable reconsideration of the rejection along with an indication of allowance of all the pending claims is respectfully requested.

Should there be any remaining questions to correct format matters, it is urged that the Examiner contact the undersigned attorney with a telephone interview to expedite and complete prosecution.

If any further fees are required in connection with the filing of this response, please charge same to our Deposit Account No. 04-1175.

Respectfully submitted,  
DISCOVISION ASSOCIATES

Date: 3/25/04



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